

# Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

Maura T. Healey Governor

Kimberly Driscoll Lieutenant Governor Rebecca L. Tepper Secretary

> Bonnie Heiple Commissioner

July 10, 2023

Paul Aronian Northeast Energy Associates 92 Depot Street P.O. Box 1213 Bellingham MA 02109 RE: Northeast Energy Associates—Charles

River Basin

Program: Water Management Act Action: Draft Water Management Act

Permit #9P-2-20-025.02

Dear Mr. Aronian:

Please find attached the following:

- Draft Findings of Fact in Support of the Draft Water Management Act Permit Decision; and,
- Draft Water Management Act Permit #9P-2-20-025.02 for Northeast Energy Associates. in Bellingham, Massachusetts.

Consistent with 310 CMR 36.27 (6)-(8) of the revised Water Management Act Regulations promulgated on November 7, 2014, the Department intends to publish notice in the Environmental Monitor that a DRAFT Permit is available for review and comment for 30 days following the July 10, 2023 publication in the Environmental Monitor. Notice of the public comment period will also be sent to all registrants, permittees and those having non-consumptive use statements within the Charles River Basin. The Department expects to issue the final permit within 30 days of the close of the public comment period.

If you have any questions and would like to meet to discuss the permit, please contact me at <u>duane.levangie@mass.gov</u> or Madelyn Morris at <u>madelyn.morris@mass.gov</u>.

Sincerely,

Duane LeVangie, Chief

Vinane LeVaugie

Water Management Act Program Bureau of Water Resources

**Enclosures** 

Ecc: Julie Blatt and Sarah Bower, MassRiver Alliance Zeus Smith, Charles River Watershed Association  $https://massgov.sharepoint.com/:f:/r/sites/DEP-BWR/DWPArchive/CRO/\ Bellingham-Northeast\ Energy\ Draft\ Permit-9P2002502-7-10-2023$ 



# **Communication for Non-English-Speaking Parties**

## **English**

This document is important and should be translated immediately. If you need this document translated, please contact MassDEP's Diversity Director at the telephone number listed below.

### **Español Spanish**

Este documento es importante y debe ser traducido de inmediato. Si necesita este documento traducido, comuníquese con la Directora de Diversidad de MassDEP al número de teléfono que aparece más abajo.

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#### 繁體中文 Chinese Traditional

本文件非常重要,應立即翻譯。如果您需要翻譯這份 文件,請用下面列出的電話號碼聯絡 MassDEP 多元 化負責人。

#### 简体中文 Chinese Simplified

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## Ayisyen Kreyòl Haitian Creole

Dokiman sa-a se yon bagay enpòtan epi yo ta dwe tradwi I imedyatman. Si ou bezwen dokiman sa a tradwi, tanpri kontakte Direktè Divèsite MassDEP Ia nan nimewo telefòn endike anba

## Viêt Vietnamese

Tài liệu này rất quan trọng và cần được dịch ngay lập tức. Nếu quý vị cần dịch tài liệu này, xin liên lạc với Giám đốc Đa dạng của MassDEP theo các số điện thoại ghi dưới đây.

## ប្រទេសកម្ពុជា Khmer/Cambodian

ឯកសារនេះគឺសំខាន់ហើយគួរត្រូវបានបកប្រែ ភ្លាមៗ។ ប្រសិនបើអ្នកត្រូវការឲ្យគេបកប្រែ ឯកសារនេះ

សូមទាក់ទងមកនាយកផ្នែកពិពិធកម្មរបស់ MassDEP តាមលេខទូរស័ព្ទខាងក្រោម។

#### Kriolu Kabuverdianu Cape Verdean

Kel dukumentu li é inpurtánti y debe ser traduzidu imidiatamenti. Se bu meste di kel dukumentu traduzidu, pur favor kontakta Diretor di Diversidádi di MassDEP na numeru abaxu indikadu.

Contact Melixza Esenyie at 617-626-1282

Massachusetts Department of Environmental Protection 100 Cambridge Street, Boston MA 02114

TTY# MassRelay Service 1-800-439-2370 • https://www.mass.gov/environmental-justice (Version revised 7.22.2022) 310 CMR 1.03(5)(a

### Русский Russian

Это важный документ, и он должен быть безотлагательно переведен. Если вам нужен перевод данного документа, пожалуйста, свяжитесь с директором по вопросам многообразия (Diversity Director) компании MassDEP по указанному ниже телефону.

### Arabic العربية

هذه الوثيقة مهمة ويجب ترجمتها على الفور . اذا كنت بحاجة الى هذه الوثيقة مترجمة، يرجى الاتصال بمدير التنوع PMassDE على أر قام الهو اتف المدرجة أدناه.

## 한국어 Korean

이 문서는 중요하고 즉시 번역해야 합니다. 이 문서의 번역이 필요하시다면, 아래의 전화 번호로 MassDEP의 다양성 담당 이사에 문의하시기 바랍니다.

## հայերեն Armenian

Այս փաստաթուղթը կարևոր է և պետք է անմիջապես թարգմանվի։ Եթե Ձեզ անհրաժեշտ է այս փաստաթուղթը թարգմանել, դիմեք MassDEP-ի բազմազանության տնօրենին ստորև նշված հեռախոսահամարով։

### Farsi Persian فارسي

این سند مهم است و باید فورا ترجمه شود. اگر به ترجمه این سند نیاز دارید، نطفا با مدیر بخش تنوع نژادی MassDEP به شماره تلفن ذکر شده در زیر تماس بگیرید

### Français French

Ce document est important et devrait être traduit immédiatement. Si vous avez besoin de ce document traduit, veuillez communiquer avec le directeur de la diversité MassDEP aux numéros de téléphone indiqués ci-dessous.

## **Deutsch German**

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### Ελληνική Greek

Το παρόν έγγραφο είναι σημαντικό και θα πρέπει να μεταφραστεί αμέσως. Αν χρειάζεστε μετάφραση του παρόντος εγγράφου, παρακαλούμε επικοινωνήστε με τον Διευθυντή Διαφορετικότητας του MassDEP στους αριθμούς τηλεφώνου που αναγράφονται παρακάτω.

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Dokument ten jest ważny i powinien zostać natychmiast przetłumaczony. Jeśli potrzebujesz przetłumaczonej wersji dokumentu, prosimy o kontakt z dyrektorem ds. różnorodności MassDEP pod jednym z numerów telefonu wymienionych poniżej.

# हिन्दी Hindi

यह दस्तावेज महत्वपूर्ण है और इसका तूरंत अनुवाद किया जाना चाहिए. यदि आपको इस दस्तावेज़ का अनुवाद करने की आवश्यकता है, तो कृपया नीचे सूचीबद्ध टेलीफोन नंबरों पर मासडेप्स डाइवर्सिटी के निदेशक से संपर्क करें.

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# DRAFT Finding of Fact in Support of Water Management Permit # 9P-2-20-025.02 Northeast Energy Associates.

The Department of Environmental Protection (the Department or MassDEP) makes the following Findings of Fact in support of the attached DRAFT Water Management Permit #9P-2-20-025.02 and includes herewith its reasons for issuing the DRAFT Permit and for conditions of approval imposed, as required by M.G.L. c. 21G, § 11. The issuance of this permit is in response to a water withdrawal permit renewal application by Northeast Energy Associates, (Northeast Energy or the Company).

On March 7, 1991, MassDEP issued a Water Management Act Permit (the 1991 WMA Permit) to Northeast Energy authorizing the Company to withdraw an annual average volume of 0.66 million gallons per day (MGD) from three groundwater sources in the Charles River Basin. Northeast Energy's actual withdrawals from 2001 through 2004 ranged from 0.61 MGD to 0.65 MGD. In 2005, the withdrawal decreased to only 0.16 MGD due to a change in operation. The plant decreased its 24 hour per day, 7 day per week operation to a less routine basis.

Because the 1991 WMA Permit expired on February 28, 2009, MassDEP issued Northeast Energy an Interim Water Management Act Permit (the 2009 Interim WMA Permit). The 2009 Interim WMA Permit authorized the Company to continue withdrawing an annual average volume of up to 0.66 MGD from its Charles River Basin groundwater sources. On February 28, 2010, MassDEP issued a Renewed Management Act Permit (the 2010 Renewed WMA Permit) authorizing the Company to continue this withdrawal until February 28, 2029. The 2010 Renewed WMA Permit authorized the Company to withdraw water from two additional sources that are not in use.

The 2010 Renewed WMA Permit had an expiration date of February 28, 2029. In 2010, the permit was extended for two years by Section 173 of Chapter 240 of the Acts of 2010, the Permit Extension Act. In 2012, the Permit Extension Act was amended by Chapter 238 of the Acts of 2012, and the 2010 Renewed WMA Permit was again extended an additional two years to February 2033. That date was further extended by 462 days due to COVID-19 Order No. 42, "Order Resuming State Permitting Deadlines and Continuing to Extend the Validity of Certain State Permits," issued on July 2, 2020. Pursuant to M.G.L. c. 30A, § 13, and 310 CMR 36.18(7), Northeast Energy's existing Water Management Act Permit remains in full force and effect until

MassDEP issues a new Final Water Management Act Permit. The expiration date for all permits going forward in the Charles River Basin is June 5, 2034.

# **Water Management Regulation Revisions**

In 2010, the Executive Office of Energy and Environmental Affairs (EEA) convened the Sustainable Water Management Initiative (SWMI) for the purpose of incorporating the best available science into the management of the Commonwealth's water resources. SWMI was a multi-year process that included a wide range of stakeholders and support from the Departments of Environmental Protection, Fish and Game, and Conservation and Recreation. In November 2012, the *Massachusetts Sustainable Water Management Initiative Framework Summary* (http://www.mass.gov/eea/docs/eea/water/swmi-framework-nov-2012.pdf) was released.

On November 7, 2014, the Department adopted revised Water Management Regulations at 310 CMR 36.00 that incorporate elements of the SWMI framework and the Water Conservation Standards adopted by the WRC. The regulations reflect a carefully developed balance to protect the health of Massachusetts' water bodies while meeting the needs of businesses and communities for water.

Without limitation, the Department has incorporated the following into Water Management permitting:

- Safe yield determinations for the major river basins based on a new methodology developed through SWMI (see the Safe Yield in the Charles River Basin section of this document). For more information on the Safe Yield methodology, go to the November 28, 2012 SWMI Framework Summary and Appendices;
- Water conservation and performance standards reviewed and approved by the WRC in July 2018; and
- Environmental protections developed through SWMI, including without limitation;
  - o protection for coldwater fish resources;
  - o minimization of withdrawal impacts in areas stressed by groundwater use; and
  - o mitigation of the impacts of increasing withdrawals.

## Safe Yield in the Charles River Basin

This permit is being issued under the safe yield methodology adopted by the Department on November 7, 2014 and described in the regulations at 310 CMR 36.13. As of the date of issuance of this permit, the safe yield for the Charles River Basin is 65.2 million gallons per day (MGD), and total registered and permitted withdrawals are 44.12 MGD. The maximum withdrawals that will be authorized in this permit, and all other permits currently under review by the Department within the Charles River Basin, will be within the safe yield and may be further conditioned as outlined in the regulations. No increase in the annual authorized withdrawal volume is provided under this permit and, therefore, this permit has no impact on Safe Yield.

## **Finding of Fact for Special Permit Conditions**

The following Findings of Fact for the special conditions included in the permit generally describe the rationale and background for each special condition in the DRAFT permit. This summary of permit special conditions is not intended to, and should not be construed as,

modifying any of the permit special conditions. In the event of any ambiguity between this summary and the actual permit conditions, the permit language shall control.

**Special Condition 1, Maximum Authorized Annual Average Withdrawal Volumes.** Special Condition 1 of the 2010 Renewed WMA Permit authorized the Company to withdraw from its permitted sources in the Charles River Basin an annual average daily volume of 0.66 MGD.

The Water Management Regulations, 310 CMR 36.03, define baseline to mean the volume of water withdrawn during calendar year 2005 plus 5%, or the average annual volume withdrawn from 2003 through 2005 plus 5%, whichever is greater provided that:

- 1. baseline cannot be less than a permittee's registered volume;
- 2. baseline cannot be greater than the permittee's authorized volume for 2005; and
- 3. if, during the period from 2003 to 2005, the permittee's withdrawals from the water source were interrupted due to contamination of the source or construction of a treatment plant, the Department will use best available data to establish a baseline volume from the water source.

Northeast Energy's baseline is the annual average volume withdrawn from 2003 through 2005 plus 5% or 0.50 MGD.

TABLE 1: NORTHEAST ENERGY'S RECENT ACTUAL WITHDRAWAL VOLUMES

YEAR	ANNUAL AVERAGE DAILY
	WITHDRAWAL VOLUME (MGD)
2020	0.013
2019	0.010
2018	0.028
2017	0.148
2016	0.150
2015	0.270
2014	0.095
2013	0.060
2012	0.088
2011	0.138
2010	0.203

As shown in Table 1 above, Northeast Energy's recent actual withdrawal volumes have been substantially below the annual average daily withdrawal volume authorized by the 2010 Renewed WMA Permit or 0.66 MGD and substantially below its baseline volume or 0.50 MGD. Northeast Energy needs less water because it does not operate 24 hours a day 7 days a week as originally envisioned and because it relies on air cooling rather than wet cooling. Northeast Energy has indicated that it does not plan to change its operations at this time and can accept a limit on its authorized volume equal to the baseline volume of 0.50 MGD.

In these circumstances, Special Condition 1 of the Water Management Act (WMA) Permit limits the Company's authorized volume to its baseline volume of 0.50 MGD. If Northeast Energy

seeks to change the way it operates, Special Condition 1 allows the Company to request that the Department amend the permit to increase its volume up to 0.66 MGD, the volume authorized by the 2010 Renewed WMA Permit, provided that Northeast Energy is in compliance with the water conservation provisions of the WMA Permit and prepares a plan to mitigate the total volume requested in excess of its baseline volume of 0.50 MGD.

**Special Condition 2, Maximum Authorized Daily Withdrawal Rate** The 2010 Renewed WMA Permit lists five groundwater Sources: NEA 1, NEA 2, and NEA 3 located at what is known as the Town Well No. 9 Site as well as NEA 4 and NEA 5 located at the Depot Site. Special Condition 2 of the 2010 Renewed WMA Permit specifies a maximum approved pumping rate for each of the Company's permitted sources. The Company has not exceeded the maximum approved rate.

At the time that MassDEP issued the 2010 Renewed WMA Permit, the Company was not using NEA 4 and NEA 5. Based on information submitted in the Company's Annual reports and in their response to the Order to Complete (OTC), the Company identified that it is not operating NEA 4 and 5 and has no plans to do so. As a result, the WMA Permit does not include NEA 4 and NEA 5 in the list of sources. The maximum approved pumping rate for NEA 1, NEA 2 and NEA 3 is a combined rate of 1.27 MGD. In no event, shall the combined withdrawals from these individual withdrawal points exceed the annual withdrawal rate authorized in Special Condition 1.

**Special Condition 3, Water Conservation Requirements** The Water Conservation Requirements set forth in Special Condition 3 of the WMA Permit are the same requirements that appear in the 2010 Renewed WMA Permit. These requirements include the use of air cooling a process that requires less water than wet cooling and use of water to run the air pollution control equipment and ensure compliance with the Company's air permit.

**Special Condition 4, Metering Requirements** Special Condition 4 the WMA Permit are the same metering requirements set forth in the 2010 Renewed WMA Permit. These requirements are the minimum requirements for metering. NEA 1, NEA 2, and NEA 3 must be metered, and the meters are required to be calibrated annually.

## **NEW PERMIT CONDITIONS**

# COLDWATER FISHERY RESOURCE, MINIMIZATION AND MITIGATION

The Water Management Regulations revised and promulgated in November 2014 require WMA permits to address protection of Coldwater Fishery Resources (CFR), minimization of the impact of pumping, mitigation of pumping above the baseline rates, and potential changes in Biological

Category (BC)<sup>1</sup> and Groundwater Withdrawal Categories (GWC)<sup>2</sup>. Below is an outline of these requirements as they apply to Northeast Energy.

## **Coldwater Fishery Resource (CFR) Protection**

Permittees with withdrawals that impact streamflow at a CFR (identified on basin maps<sup>3</sup>) must evaluate strategies for reducing impacts to CFRs through feasible optimization. The Company has no sources that have been determined to impact an area identified as a CFR at this time. Accordingly, the WMA Permit does not require the Company to evaluate strategies for reducing CFR impacts from its groundwater withdrawals.

#### Minimization

Permittees with groundwater sources in subbasins having an August Net Groundwater Depletion (NGD)<sup>4</sup> of 25% or greater are required to develop a plan to minimize the impacts of their withdrawals. The Company currently uses only three grounds sources- NEA 1, NEA 2, and NEA 3. These sources are in Charles River Subbasin 21028, a subbasin that has an August NGD of 5.3%<sup>5</sup>. As a result, the Modified WMA Permit will not require the Company to develop and implement a minimization plan.

## Mitigation

<sup>&</sup>lt;sup>1</sup> The Water Management Regulations, 310 CMR 36,14(1)(a), establish a biological category (BC) for each subbasin based on the simulated 2000 to 2004 existing condition of aquatic habitat using fluvial fish community characteristics as the surrogate indicator variable. Each biological category represents the percent alteration within the range of these fluvial fish community characteristics as a function of the following subbasin parameters: 1. Impervious cover; 2. Cumulative groundwater withdrawal as a portion of the unimpacted August median flow; 3. Stream channel slope; and 4. Percent wetland within the stream buffer area. The percent alteration for each BC is as follows: BC 1, 0% to5%.; BC 2, > 5% to 15%; BC3 > 15% to 35%; BC 4, > 35% to 65%; BC 5, >65%.

<sup>&</sup>lt;sup>2</sup> The Water Management Regulations 310 CMR 36.14(1)(b), establishes a groundwater withdrawal category (GWC) based on the ratio of 2000 to 2004 groundwater withdrawal volume to the unimpacted median monthly flow for August and represents conditions during the late summer bioperiod (July thru September). Each GWC represents the range of this ratio that would result in the BC of the same number under conditions of low (15%) impervious cover. The GWC for each withdrawal ratio for the late summer bioperiod is as follows: GWC 1, 0% to 3%; GWC 2, >3% to 10%; GWC 3, >10% to 25%; GWC 4, >25% to 55%; and GWC 5, >55%.

<sup>&</sup>lt;sup>3</sup> Subbasins used for WMA permitting are the 1,395 subbasins delineated by the U.S. Geological Survey in *Indicators of Streamflow Alteration, Habitat Fragmentation, Impervious Cover, and Water Quality for Massachusetts Stream Basins* (Weiskel *et al.*, 2010, USGS SIR 2009-5272).

<sup>&</sup>lt;sup>4</sup> The Water Management Regulations, 310 CMR 36.03, define August net groundwater depletion to mean the unimpeded median flow for August minus 2000-2004 groundwater withdrawals plus 2000-2004 groundwater returns described by U.S. Geological Survey in *Indicators of Streamflow Alteration, Habitat Fragmentation, Impervious Cover and Water Quality for Massachusetts Stream Basins*.

<sup>&</sup>lt;sup>5</sup> The 2010 Renewed WMA Permit lists two sources, NEA 4 and NEA 5, that are in Subbasin 21029, a subbasin with an August NGD of 78.3%. These sources have been removed from the permit and would require a permit amendment before using either source.

Permittees requesting an increase above their baseline withdrawal must undertake mitigation commensurate with the impact of their increased withdrawals on the basins where the permittees' sources are located. These impacts also include the cumulative impacts of all increased withdrawals that may result in adverse downstream BC or GWC category changes. As stated above, the WMA Permit limits the Company's total authorized volume to 0.50 MGD, its baseline volume. Given this limit, the WMA Permit does not require mitigation.

# Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

Maura T. Healev Governor

Kimberly Driscoll Lieutenant Governor Rebecca L. Tepper Secretary

> Bonnie Heiple Commissioner

## WATER WITHDRAWAL PERMIT MGL c 21G

This permit is issued pursuant to the Massachusetts Water Management Act for the sole purpose of authorizing the withdrawal of a volume of water as stated below and subject to the following special and general conditions. This permit conveys no right in or to any property beyond the right to withdraw the volume of water for which it is issued.

**PERMIT NUMBER**: 9P-2-20-025.02 **RIVER BASIN**: Charles

PERMITTEE: Northeast Energy Associates

> 92 Depot Street P.O. Box 1213

Bellingham, MA 02109

**EFFECTIVE DATE: XXXXXXX** 

**PERMIT EXPIRATION DATE:** June 5, 2034 **NUMBER OF WITHDRAWAL POINTS: 3** 

> Groundwater: 3 Surface Water: 0

**USE**: Industrial

**DAYS OF OPERATION: 365** 

# WITHRAWAL POINT IDENTIFICATION:

# **Table 1. Withdrawal Point Identification**

Source Name	WMA Source #	Location	Latitude	Longitude
NEA 1	WM4643-01G	Town Well No. 9 Site	42.09676	71.48162
NEA 2	WM4643-02G	Town Well No. 9 Site	42.09676	71.48162
NEA 3	WM4643-03G	Town Well No. 9 Site	42.09676	71.48162

#### SPECIAL CONDITIONS

# Special Condition 1 Maximum Authorized Annual Average Withdrawal Volume

This WMA Permit authorizes the withdrawal of water on average over a calendar year at the rate described below (Table 2). The permitted volume is expressed in millions of gallons both as an average daily withdrawal rate per year and as a total annual withdrawal volume for each permit period.

Permittees whose authorized volume exceeds their baseline volume are required to develop a plan to mitigate the authorized volume above the baseline volume as adjusted by the volume of wastewater returned to the groundwater within the basin and to implement that plan prior to withdrawing more than the baseline volume. To allow the Northeast Energy Associates (NEA) to avoid this mitigation requirement, the permit provides that NEA shall limit its withdrawal volume to its baseline volume of 0.50 MGD, 182.50 MGY, unless and until:

- a. NEA submits to MassDEP an application for a permit amendment requesting authorization to withdraw more than its baseline volume of 0.50 MGD up to a total authorized volume of 0.66 MGD, and a plan to mitigate the amount of the total requested authorized withdrawal volume that exceeds the baseline volume of 0.50 MGD, as adjusted for any wastewater returned via groundwater disposal to the basin;
- b. MassDEP issues a permit amendment in response to that application; and
- c. NEA, in accordance with the amended permit, implements the mitigation plan prior to withdrawing more than its baseline volume of 0.50 MGD.

**Table 2: Maximum Authorized Withdrawal Volumes Total Authorized Raw Water Withdrawal Volumes Prior** 

Permit Periods	to Permit Amendme	ermit Amendment and Mitigation Plan		
1 erint 1 erious	Daily Average (MGD)	Total Annual (MGY)		
TBD to 6/5/2029	0.50 182.50			
6/6/2029 to 6/5/2034	0.50	182.50		
	Maximum Authorized Total Raw Water Withdrawal Volumes After Permit Amendment and Mitigation Plan			
Darmit Dariods				
Permit Periods				
Permit Periods  TBD to 6/5/2029	Volumes After Permit Amer  Daily Average	ndment and Mitigation Plan  Total Annual		

# Special Condition 2 Maximum Authorized Daily Withdrawals From Each Withdrawal Point

Withdrawals from individual withdrawal points are not to exceed the approved daily volume listed below (Table 3) without specific advance written approval from the Department. The authorized maximum daily volume is the approved rate of each source. In no event shall the combined withdrawals from the individual withdrawal points exceed the annual withdrawal rate authorized above in Special Condition 1.

**Table 3 Maximum Authorized Withdrawal Volume** 

Sources	Maximum Daily Rate
NEA 1, NEA 2, NEA 3	Combined withdrawal rate of NEA 1, NEA 2,
	and NEA 3 cannot exceed 1.27 MGD.

# **Special Condition 3 Water Conservation Requirements**

Based on the minimum water conservation requirements, the Department has accepted the Northeast Energy Associate's Water Conservation Plan and Plan of Action (Plan of Action attached) as a permit condition.

# **Special Condition 4 Metering Requirements**

Wells NEA 1, 2 and 3 are metered. Continue to calibrate each meter annually.

## **GENERAL PERMIT CONDITIONS (applicable to all permittees)**

No withdrawal in excess of 100,000 gallons per day over the registered volume (if any) shall be made following the expiration of this permit, unless before that date the Department has received a renewal permit application pursuant to 310 CMR 36.00.

- **1. <u>Duty to Comply</u>** The permittee shall comply at all times with the terms and conditions of this permit, the Act and all applicable State and Federal statutes and regulations.
- **2.** <u>Operation and Maintenance</u> The permittee shall at all times properly operate and maintain all facilities and equipment installed or used to withdraw water so as not to impair the purposes and interests of the Act.
- **3.** Entry and Inspections The permittee or the permittee's agent shall allow personnel or authorized agents or employees of the Department to enter and examine any property for the purpose of determining compliance with this permit, the Act or the regulations published pursuant thereto, upon presentation of proper identification and an oral statement of purpose.
- **4.** Water Emergency Withdrawal volumes authorized by this permit are subject to restriction in any water emergency declared by the Department pursuant to MGL c 21G ss 15-17, MGL c 111 ss 160, or any other enabling authority.
- **5.** <u>Transfer of Permits</u> This permit shall not be transferred in whole or in part unless and until the Department approves such transfer in writing, pursuant to a transfer application on forms provided

by the Department requesting such approval and received by the Department at least thirty (30) days before the effective date of the proposed transfer. No transfer application shall be deemed filed unless it is accompanied by the applicable transfer fee established by 310 CMR 36.37.

- **6. Duty to Report** The permittee shall complete and submit annually, on a form provided by the Department, all of the information required by said form including, without limitation, a certified statement of the withdrawal. Such report shall be received by the Department by the date specified on the form each year. Such report must be submitted as specified in the report form.
- 7. <u>Duty to Maintain Records</u> The permittee shall maintain withdrawal records and other information in sufficient detail to demonstrate compliance with this permit.
- **8.** <u>Metering</u> If the withdrawal point included within the permit is not yet metered, it shall be metered within one year of the date of issuance of the permit. Meters shall be maintained and replaced as necessary to ensure the accuracy of the withdrawal records.

## **APPEALS**

Any person aggrieved by this decision may request an adjudicatory hearing on this Permit by timely filing a Notice of Claim for an Adjudicatory Appeal ("Notice of Claim") in accordance with 310 CMR 36.37 and 310 CMR 1.01 within twenty-one (21) days of its receipt of this Permit. The Notice of Claim shall state specifically, clearly and concisely the facts that are grounds for the appeal, the relief sought, and any additional information required by applicable law or regulation. A copy of this Permit shall be included with a Notice of Claim. No request for an appeal of this Permit shall be validly filed unless a copy of the request is sent at the same time by certified mail, or delivered by hand, to the local water resources management official in the community in which the withdrawal point is located; and for any person appealing this decision, who is not the Permittee, unless such person notifies the Permittee of the appeal in writing by certified mail or by hand within five (5) days of mailing the appeal to the Department.

The Notice of Claim and supporting documentation must be sent by certified mail or hand delivered to:

Case Administrator
Office of Appeals and Dispute Resolution
Department of Environmental Protection
100 Cambridge Street, Suite 900
Boston, MA 02114

In addition, the Department's fee transmittal form, together with a valid check made payable to the Commonwealth of Massachusetts in the amount of \$100 for the appeal filing fee, if required, must be mailed to:

Commonwealth of Massachusetts Lock Box Department of Environmental Protection P.O. Box 4062 Boston, MA 02211 The Notice of Claim may be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver. The filing fee is not required if the appellant is a city, town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, along with the hearing request, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

# NORTHEAST ENERGY ASSOCIATE'S WATER CONSERVATION PLAN AND PLAN OF ACTION

(Excerpted from Water Management Act Permit Application dated November 1989)

## **FOR WATER WITHDRAWAL PERMIT**

The Bellingham Facility was designed with minimum water consumption as one of the principal criteria. NEA was advised by the Charles River Watershed Association, the Box Pond Association, and the Town of Bellingham in this matter. As a consequence of concerns raised by these parties, NEA made fundamental design choices which limit water usage: first, the facility will use an air-cooled condenser instead of wet cooling towers; and, second, the facility will use a "zero-discharge" water recycling system.

The use of an air-cooled condenser is unusual in power plants of the size of the Bellingham Facility. That is because of the significantly higher cost of an air-cooled condenser as opposed to a wet tower. An air-cooled condenser does, however, reduce water usage by several fold. The second water saving measure was taken for two reasons: the zero-discharge system recycles water, reducing consumption, and eliminates all process water discharges, minimizing water pollution risk. As with the air-cooled condenser, the zero-discharge system represented a significant increase in the cost of the Bellingham Facility. It necessitates a larger process water treatment facility on-site to clean water before reusing which affects both the capital cost of the facility as well as operating expenses. The benefits of the system are that it reduces water consumption and ensures that no water which is used in the process is discharged to the Charles River, Box Pond or the local groundwater. The only liquid discharge from the facility is stormwater runoff. According to Westinghouse Electric Corporation, the turnkey design and build contractor of the Bellingham Facility, if the facility was built with wet cooling towers and no zero-discharge system, maximum daily water consumption would be approximately 4,100,000 gallons when burning natural gas and 4,400,000 gallons when burning oil, a huge increase over actual facility demands.

The principal water consumer in the facility is the air pollution control system. To control the formation of nitrogen oxide, steam is injected during the combustion of natural gas. This steam, which is released into the atmosphere from the Facility's stack, accounts for 96% of the water consumed in the facility. That quantity cannot be reduced without adversely affecting air quality (and violating NEA's air permit).